



San Francisco City Planning Commission
And San Francisco Redevelopment Agency

Mitigation Measures

SECOND SUPPLEMENT

YERBA BUENA CENTER

ENVIRONMENTAL IMPACT REPORT

82.35E

Draft Publication Date: May 28, 1982

Public Comment Period: May 28, 1982 through July 6, 1982

Public Hearing Date: July 6, 1982

Certification Date: January 4, 1983

January 4, 1983

Commissioners,

A portion of a sentence was inadvertently omitted from the compendium of "Mitigation Measures" which you received in your packet for today's joint meeting. The omission occurred on page 1, paragraph #3. For clarity, the entire paragraph appears below with the omitted portion underlined.

"To avoid confusion, all of the mitigation measures are collated by category and subcategory. These mitigation measures constitute, by law, a compendium of all the reasonably available measures to reduce or eliminate the significant environmental effects identified in the documents listed above. Certification of each of these environmental documents constitutes a statement by the certifying agencies that the document identifies all significant environmental impacts and contains all reasonably available mitigation measures."

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INTRODUCTION TO MITIGATION MEASURES

Enclosed for your use and convenience is a compendium of mitigation measures identified in the Yerba Buena Center environmental impact reporting process. The list is compiled from the following sources:

1. The 1978 YBC Final Environmental Impact Report.
2. The First YBC EIR Supplement.
3. The Draft Second YBC EIR Supplement.
4. The Second YBC EIR Supplement, Summary of Comments and Responses.
5. The Second YBC EIR Supplement, Addendum to Summary of Comments and Responses.

This compendium includes all mitigation measures identified in documents 2, 3, 4, and 5. It also includes all mitigation measures identified in document 1, the 1978 YBC FEIR, which remain applicable at this time. The list does not reproduce mitigation measures from the 1978 YBC FEIR which have already been fulfilled, such as those applied to the convention center which has been constructed or to the HUD subsidized housing which has been built or is under construction, or which are not applicable to the uses in the Main Program. Also excluded are discussions in the 1978 YBC FEIR of the comparative effect of mitigation measures under different alternatives.

To avoid confusion, all of the mitigation measures are collated by category and subcategory. These mitigation measures constitute, by law, a compendium of all the significant environmental effects identified in the documents listed above. Certification of each of these environmental documents constitutes a statement by the certifying agencies that the document identifies all significant environmental impacts and contains all reasonably available mitigation measures.

Actual implementation of the mitigation measures occurs only after certification, as portions of the project itself are approved. The approving agency must at that time incorporate each of the applicable mitigation measures as conditions to the permit it is issuing, or the alternatively make one or both of the following two findings:

1. That the applicable mitigation measure has not been adopted because it is within the responsibility and jurisdiction of another public agency, and that such measure has in fact been adopted by the other agency or can and should be adopted by the other agency.
2. That the applicable mitigation measure has not been adopted because of specific identified social, economic or other considerations which make the mitigation measure "infeasible". (See Public Resources Code section 21081.)

In sum, at the time of certification, the certifying agencies are not "adopting" any mitigation measures in the sense of imposing them as project conditions. Rather, the certifying agencies are stating that the list of mitigation measures is complete and reasonable. The inclusion of a mitigation measure in a certified EIR forces subsequent decision-makers to include the measure in any applicable permit, or alternatively to identify another agency that will include the measure or to identify specific reasons why the measure could not be imposed.

This section is organized in the same sequence as the Setting and Impact sections of the Second YBC EIR Supplement, with the same letter designating each impact category as in those sections. All suggested mitigation measures identified in the YBC FEIR and in the First YBC EIR Supplement that would pertain to the uses proposed in this Supplement for development of the Main Program are summarized at the beginning of each subsection and incorporated here by reference (pp. 447 - 509 of the YBC FEIR and pp. 77 - 85 of the First YBC EIR Supplement). Additional suggested mitigation measures are listed following the summary. All measures in the Draft Second Supplement and the Summary of Responses to Comments and addendum to it are included; where additions or changes to measures included in the Draft Second Supplement were made in the Summary of Comments and Responses or addendum, these changes have been underlined, and new and changed measures have been starred. Impact categories for which no YBC FEIR measures are applicable and no additional measures are suggested are omitted from the sequence. The suggested mitigation measures would be acted upon by the Redevelopment Agency Commission just prior to action by the Commission on each proposed land disposition and development agreement, and could be made conditions of approval on each agreement.

A. LAND USE, ZONING AND VISUAL ASPECTS

APPLICABLE YBC FEIR MEASURES

The Redevelopment Agency would require the allocation of 1% of the construction costs of all buildings except the subsidized housing to public fine art works.

APPLICABLE FIRST YBC EIR SUPPLEMENT MEASURES

The Redevelopment Agency and HUD are consulting with the State Historic Preservation Officer and Advisory Council on Historic Preservation, regarding a Memorandum of Agreement relating to Historic Buildings.

SUGGESTED ADDITIONAL MEASURES

- ** The Redevelopment Agency would consider requiring developers to construct temporary wooden barricades around the perimeter of construction sites (where they border pedestrian routes) in order to screen pedestrians from construction activities wherever possible.
- ** The principles and design standards developed by the Redevelopment Agency's urban design consultants would include consideration of the effect of building design and layout on the visual context of existing buildings of identified architectural or historic merit, both inside and outside of the Redevelopment Project Area.

Should housing be constructed on CB-2, the Redevelopment Agency would consider requiring the Central Blocks developer to design both housing and open space to eliminate any apparent territorial claim or "privateness" the housing may exert on the public open space on CB-2.

The Redevelopment Agency would require placement of sidewalk lighting so as not to interfere with the vision of passing motorists and to avoid creating reflective glare on adjacent buildings.

- ** The Redevelopment Agency would consider requiring the developers of YBC to provide litter pick-up for areas included in their respective land disposition and development agreements to maintain an attractive appearance within YBC.

The Redevelopment Agency would consider incorporating design measures to mitigate a possible visual effects of continuous adjacent tall buildings along the perimeter of CB-1 at Fourth, Market and Third Sts. These measures could include the provision of pedestrian-level windows and gateways that allow the passer-by to view activities in the interior of the block, and the use of building shape, color, shadow lines and texture to break up the line of continuous building surfaces.

- ** The Redevelopment Agency would consider prohibiting the use of reflective glass in all buildings adjacent to or across the street from proposed and existing residential buildings located both inside and immediately outside the YBC Redevelopment Area. The Redevelopment Agency would also consider prohibiting the use of reflective glass in nonresidential buildings in areas where it is determined during the course of design review that adverse impacts on nearby structures or open areas would occur."

The Redevelopment Agency would consider requiring that new housing on SB-2 be constructed so as to preserve views from the existing TODCO / Los Caballeros Dimasalang House toward CB-3 and the San Francisco skyline to the extent possible and feasible.

- ** The Redevelopment Agency would consider requiring developers to provide space for resident-serving retail-commercial uses near all housing sites in YBC. The Redevelopment Agency has proposed 35,000 sq. ft. of space for this use of SB-2. Sites recommended by community groups (South of Market Coalition, March 1981, The Yerba Buena Center Neighborhood Plan) for development of resident-serving retail uses include the southwestern corner of SB-2 for a supermarket and parking and the southeastern corner of WB-3. The southwestern corner of SB-2 would be Retail and Parking with the Main Program (see Figure 8, p. 38). The southeastern corner of WB-3 is occupied by the Union Gas Station, which is proposed to remain under the Main Program.

- ** The Redevelopment Agency would consider issuing tax-exempt mortgage revenue bonds to finance rental housing development in YBC. If this type of financing were successful, under Federal law (Mortgage Subsidy Revenue Bond Tax Act of 1981) 20% of the rental units would have to be made available to households which have incomes within the eligibility limits of the Federal 'Section 8' Program.

- ** The Redevelopment Agency would consider requiring the Central Blocks developer to provide and subsidize low-income housing in or outside of YBC, either through new construction or rehabilitation of existing vacant units. This measure would be intended to mitigate potential indirect displacement (due to rising land values and rents) of low-income persons in the vicinity of YBC. Implementation of this measure could result in a decrease in public amenities and benefits now proposed as part of the Main Program within YBC and thus may not conform to the objectives for the Yerba Buena Center Project as described in the RFQ.
- ** The Redevelopment Agency would consider requiring, through lease agreements, that YBC businesses consult with the Commission on Aging, with the object of participating in the Commission's "Gold Card" Program to the extent possible and feasible. Holders of a "Gold Card" (low-income elderly meeting Commission on Aging Program requirements) would be entitled to discounts from participating businesses.
- ** The Redevelopment Agency would consider requiring, through lease agreements, that YBC employers set up an equitable program to generally give preference in permanent hiring to South of Market residents first, San Francisco residents second, and all other applicants third. This program would be implemented to the extent that it would not conflict with constitutional or other legal requirements, such as Affirmative Action, or commitments such as honoring union contracts.
- ** The Redevelopment Agency would consider requiring developers to set up an equitable program to generally give preference in leasing concession space to South of Market residents first, other San Francisco residents second, and all other applicants third. This would be implemented to the extent that it would not conflict with constitutional or other legal requirements, such as Affirmative Action, or commitments such as honoring union contracts.
- ** The Redevelopment Agency would work with developers to endeavor to make small-scale retail uses (not to exceed 2,000 square feet per establishment) conveniently available to meet the shopping, service and eating needs of downtown workers and residents. The Redevelopment Agency would encourage developers to price these small retail spaces to be affordable to local San Francisco businesses.

The SPUR study (June, 1981)/7/ recommends the following measures to preserve low- and moderate-income housing in South of Market. A public non-profit corporation should buy out residential hotels along Sixth St., rehabilitate them, and permanently dedicate them for low- and moderate-income housing. In order to minimize per-unit costs of housing development, the City should encourage the construction of relatively high densities and small units. The existing requirement for the inclusion of 10% low- and moderate-income units in all developments containing over 50 units should be applied to the South of Market area. Public land in South of Market should be made available to housing developers at below market rates in exchange for development of additional low- and moderate-income units on the sites. Existing fire zone regulations should be reviewed, and any found to be not absolutely necessary should be modified to reduce construction costs.

While the degree of mitigation attendant such action is speculative, consideration could be given to expanding the scope of City and County ordinances and programs designed to protect and expand existing low- and moderate-income housing. Expansion of existing ordinances may increase the protection of low- and moderate-income housing west of YBC (and throughout the City) from some possible effects of potential real estate speculation. It could also place a burden on property owners who find it difficult to meet their costs, thereby reducing the ability to maintain the quality and safety of such housing. Amending City ordinances would require action by the Board of Supervisors.

- ** Consideration could be given by the Mayor and the Board of Supervisors to expanding the availability of City General Fund grants under their control for use by public and private agencies giving aid to South of Market indigents.
- ** Rezoning the area west of YBC (between Fifth and Seventh Sts.) from C-3-R (Downtown Retail), C-3-G (Downtown General Commercial), C-3-S (Downtown Support) and M-1 (Light Industrial) to an RC (Residential-Commercial) district would preserve housing and ground-floor neighborhood-serving retail commercial uses in the area. Amending the City Zoning Map would require action by the City Planning Commission to approve and recommend the amendment to the Board of Supervisors, and by the Board of Supervisors to adopt all or part of the recommended change. Although this measure could preserve housing, the rezoning could make the area more attractive for residential speculation than it would be under existing zoning by reducing the number and amount of permitted "incompatible" uses.

B. HOUSING AND BUSINESS RELOCATION

APPLICABLE YBC FEIR MEASURES

Housing Relocation

Under the settlement agreement in TOOR vs. HUD, a total of 1,500 housing units were to be provided in the City to help with the rehousing of people displaced from YBC. In response to this order, the Redevelopment Agency has provided 1,661 units (Table 5, p. 85, YBC FEIR). In addition to these rehabilitated housing units made available, displaced persons were also eligible for relocation benefits under the Federal Uniform Relocation Act of 1970. To accommodate a second court settlement agreement, four additional housing sites within the YBC area have been provided; in YBC FEIR Section V. B, these are described under the various YBC FEIR alternatives as Sites 1, 2, 3 and 4 (Table 7, p. 88, YBC FEIR).

Business Relocation

Pursuant to Federal relocation requirements, the Redevelopment Agency has provided financial aid to displaced businesses to help them relocate permanently within or outside the YBC area (YBC FEIR, p. 448).

C. SOCIAL CHARACTERISTICS

APPLICABLE YBC FEIR MEASURES

The YBC area is populated now almost entirely by low-income elderly people. The introduction of market-rate housing would broaden the population mix of the area by adding mostly a non-elderly population.

APPLICABLE FIRST YBC EIR SUPPLEMENT MEASURE

** The Redevelopment Agency would consider requiring the sales agreements of all market-rate housing units proposed for YBC to specify that the purchasers must agree not to participate in time-share ownership of the unit, as well as agree to occupy the units for at least one year after purchase.

SUGGESTED ADDITIONAL MEASURES

The Land Use mitigation measures listed above are applicable.

E. COMMUNITY SERVICES

APPLICABLE YBC FEIR MEASURES

The Redevelopment Agency would require that all developers install low-flow toilets, urinals, taps and showerheads to reduce total liquid wastes discharged into the sewers.

Discharge of dewatering wastes from construction sites would conform to the Industrial Waste Ordinance.

The Redevelopment Agency would require that all refuse be placed in metal dumpster containers to facilitate pick-up, and would encourage rooms for the storage of recyclable wastes in all buildings.

The Redevelopment Agency would require installation of bicycle racks near office building entrances for use by messengers.

All construction sites must be fenced under the Federal Occupational Health and Safety Administration Regulations.

** The Redevelopment Agency would recommend security systems or bonded security guards for all office buildings, retail-commercial establishments, and housing. Implementation would be the responsibility of the developer. Street lighting should be designed for pedestrians as well as vehicles. The Department of Public Works would approve lighting plans.

APPLICABLE FIRST YBC EIR SUPPLEMENT MEASURES

Before requesting that Jessie St. be vacated on CB-1, the Redevelopment Agency would consider requiring the developer to hire a qualified plumber to determine whether any existing buildings are connected to the sewer under Jessie St. Should Jessie St. be vacated and the sewer abandoned, any buildings that are currently connected would be reconnected to the mains in Fourth St. or Mission St. at the expense of the developer or the Redevelopment Agency.

SUGGESTED ADDITIONAL MEASURES

- ** The Redevelopment Agency would consider working with the Chief Administrative Officer to provide a special police patrol of those areas adjacent to the subsidized housing for the elderly. This patrol could be funded by the Chief Administrative Officer's Low Income Housing Fund. The need for this patrol could be reviewed annually by the Chief Administrative Officer.
- ** The Redevelopment Agency would consider requiring the developer of the Central Blocks to provide a central security office with responsibilities to coordinate and provide for communication among the various security services in YBC. The cost of this office should be shared by all YBC tenants.

F. TRANSPORTATION

APPLICABLE YBC FEIR MEASURES

The Redevelopment Agency would consider implementing the following measures to increase effective sidewalk capacity for pedestrians:

- Widen sidewalks wherever possible along Fourth and Third Sts. between Howard and Market by requiring that buildings be set back at least 2 to 3 ft. from the property line fronting the sidewalk. These setbacks would be most effective if implemented consistently over the entire length of a block.
- Work with the Department of Public Works, which authorizes permits for placement of sidewalk furniture, to control placement of width-restricting sidewalk furniture (street trees, benches, litter baskets, etc.).

The Redevelopment Agency would consider encouraging individual employers within YBC to implement the following transit and traffic impact mitigation measures:

- Implement "flex" time or staggered work hours. This would spread the peak loading period over several hours and reduce projected peak-hour and peak-15-minute volumes.
- Coordinate car pooling and van pooling among employees.

The Redevelopment Agency would consider encouraging the George Moscone Convention Center management to coordinate a shuttle service with the major hotels during conventions.

The Redevelopment Agency would require the following driveway placement and design standards:

- Place driveway openings at least 50 ft. from crosswalks.
- Make driveways a minimum of 24 ft. wide for two-way movements.
- Provide for at least 50 ft. of curb between adjacent driveway locations.
- Keep the number of driveways to a minimum with good design practice.

The Redevelopment Agency would consider working with the San Francisco Parking Authority to regulate parking rates in YBC public garages in order to discourage all-day parking (commuters) but allow short-term (1 to 4 hours) visitors to park inexpensively. The Redevelopment Agency would consider encouraging owners of private garages in YBC to implement a similar rate structure.

The San Francisco Department of Public Works and the San Francisco Police Department are responsible for regulating construction truck activity in San Francisco. Haul routes may be specified by the Department of Public Works as a condition of construction permits. In addition, the Redevelopment Agency would consider encouraging YBC contractors to direct trucks to and from the James Lick Freeway along Third and Fourth Sts. during off-peak traffic periods.

APPLICABLE FIRST YBC EIR SUPPLEMENT MEASURES

The Redevelopment Agency is currently (1982) preparing a Transportation Management Plan to address vehicular traffic circulation and automobile parking.

The Redevelopment Agency would consult with, or would require the project developers to consult with, the Department of City Planning and the Bureau of Traffic Engineering in designing the pedestrian access, vehicular access (including taxi and tour and charter-bus loading areas), and off-street loading facilities.

SUGGESTED ADDITIONAL MEASURES

The Redevelopment Agency would require the developers to coordinate construction activities in YBC with construction contractors for any concurrent nearby projects which are under construction, are planned for construction or later become known, in order to minimize cumulative traffic impacts due to lane closures or street excavation.

Construction contractors and utility companies would coordinate work schedules requiring trenching through the Committee for Utility Liaison on Construction and Other Projects (CULCOP) so that street disruption would take place during weekends and off-peak hours.

- ** The Redevelopment Agency would consider providing off-street parking for construction workers on the development site, or at an off-site location within the project area, and consider requiring developers to provide Muni passes to construction workers to minimize temporary parking demand. Providing Muni Fast Passes would add passengers to a system currently operating at or near capacity during the rush hours.

- ** The Redevelopment Agency would consider requiring the developers to coordinate construction schedules to minimize disruption to the sidewalk system that would occur from simultaneous construction activity on both sides of a street and concurrent sidewalk closures or detours; the amount of pedestrian traffic generated by attendance at the Convention Center should be considered in the design of the walkways. Construction walkways would be maintained by contractors to provide adequate pedestrian safety.

Calculations for pedestrian impacts in this Supplement include the assumption of at-grade mid-block crossings of Mission and Howard Sts., connecting the mid-block pedestrian plazas proposed for CB-1 and CB-2 with the convention center on CB-3. The San Francisco Department of Public Works would be responsible for implementing these crossings. If they were not implemented, projected conditions on Third and Fourth St. sidewalks would be worse than shown in the impact analysis, pp. 152 - 155 . The Department of Public Works is on record as opposing mid-block crossings in YBC for safety reasons (Jeffrey Lee, Director of Public Works and the Clean Water Program, letters dated August 14, 1980, May 12, 1981, and March 5, 1982, all on file with the Office of Environmental Review, Room 315, 45 Hyde St). The Department of Public Works recommends instead the use of mid-block pedestrian bridges over Mission and Howard Sts. If "at grade" pedestrian crossings are developed on Mission and Howard Sts., (between Third and Fourth Sts.) appropriate traffic control devices would be installed to reduce the potential for accidents involving pedestrians and delays associated with pedestrian-vehicle conflicts. The Redevelopment Agency would consider requiring that the developer provide pedestrian bridges, which would reduce these hazards.

- ** The Redevelopment Agency would consider requiring developers to design their projects to facilitate access by the elderly and handicapped in accordance with San Francisco Building Code Sections 33.01 and 17.11, and with Title 24, Section 2 of the California Administrative Code, where otherwise not required and wherever feasible.
- ** The Redevelopment Agency would consider working with the Traffic Division of the Bureau of Engineering of the Department of Public Works to redesign the Mission/Fourth intersection to reduce potential pedestrian hazards associated with left-turning traffic into the Fifth and Mission garage entrance if the DPW deems such redesign necessary.

The Redevelopment Agency would consider requiring developers to provide adequate, secure and safe bicycle parking to serve YBC residents and employees.

The Redevelopment Agency would consider limiting or excluding access from off-street parking facilities onto Mission and Market Sts. and requiring provision of access to Third and Fourth Sts. from new facilities, instead.

- ** The Redevelopment Agency would consider requesting the Parking Authority to set aside a reasonable amount of parking spaces for social service and medical providers.

The Redevelopment Agency would consider requiring that off-street loading spaces be provided to meet actual demand, calculated according to San Francisco Department of City Planning, 1980, Center City Circulation Program; Pedestrian Circulation and Goods Movement, working papers 1,2, and 3 and Final Report. The Redevelopment Agency would work with the Chief Administrative Officer's Office to make convention center loading docks, driveways or other loading facilities available to uses on the convention center roof.

- ** The Redevelopment Agency would consider retaining or requiring developers to retain a transportation broker within YBC. The broker would encourage transit use through the on-site sale of BART, Muni and Golden Gate Transit passes, and would coordinate YBC employee car pool and van pool systems in cooperation with RIDES for Bay Area Commuters by providing a central clearinghouse for car pool and van pool information.
- ** In recognition of the need for expanded transportation services to meet the peak demand generated by cumulative commercial development in the project area, the Redevelopment Agency would consider requiring developers to contribute funds for maintaining and augmenting transportation service, in an amount proportionate to the demand created by the respective developments as provided by Board of Supervisor's Ordinance No. 224-81. Should Ordinance No. 224-81 be declared invalid by the Courts, the Redevelopment Agency would consider requiring developers to participate in any subsequent equivalent mitigation measures to be adopted in lieu thereof by the City, which measures will apply to all developments similarly situated.

Transit agencies could provide additional transit vehicles, change headways, and possibly, shift routes on non-rail systems to alleviate the overload that would occur on the Muni, BART, A-C Transit, and the SamTrans mainline (Highway 101 Route) due to cumulative development. Implementation of this mitigation measure would depend primarily on the availability of funds and on actions initiated by the Metropolitan Transportation Commission (MTC) and the respective transit agencies and districts.

G. CLIMATE AND AIR QUALITY

APPLICABLE YBC FEIR MEASURES

The reduction of dust generated by excavation and other construction activities would be achieved by using construction-industry-accepted methods such as watering the site and covering load material in trucks.

- ** The Redevelopment Agency would consider working with developers to encourage them to partially reimburse the costs of cleaning nearby facades where an increase in the rate of dust accumulation has clearly been the result of the developer's construction activities.

In the 1978 YBC EIS HUD required that one or more of the following specific measures be included in housing design to reduce indoor levels of pollutant exposure in all YBC housing:

- Housing units be at the second level or higher.
- Recirculation-type ventilation system and central forced-air heating system.
- Electric ranges in lieu of gas ranges.
- Emission vents of structures separated from air intakes by at least 15 feet.
- Air intakes elevated at least ten feet above street level.
- Avoidance of long linear blocks of structures.
- No direct access to dwelling units from parking areas through a common doorway.

In the 1978 YBC EIS HUD required mitigation of exterior air quality as follows:

- No active outdoor areas such as play areas, tennis courts and swimming pools.

This measure is based on air quality calculations performed in 1978 for the YBC FEIR and HUD YBC EIS. Assumptions used in these calculations resulted in what now appears to be an overestimation of projected pollutant concentrations for outdoor areas in YBC (see full discussion, p. 171). Updated methodology and assumptions indicate that carbon monoxide standards would be exceeded only on portions of YBC blocks adjacent to the James Lick Freeway (First YBC EIR Supplement, pp. 114 - 115). Carbon monoxide concentrations elsewhere in YBC, as well as other pollutant concentrations everywhere in YBC, would not exceed standards.

Air quality impacts would be reduced through implementation of Transportation mitigation measures in VII., F.

SUGGESTED ADDITIONAL MEASURE

- ** Shadow, microclimate and wind-tunnel analyses would be performed by the Central Blocks developer during the building design process. Necessary modifications, as determined through Redevelopment Agency review, in building siting and shape identified in the study would be implemented to reduce wind turbulence, and shading effects on proposed open areas wherever possible. The Redevelopment Agency would consider requiring that the land disposition and development agreement (LDA) provide a process by which wind and shadow studies for the "Gardens" portion on the project would be done and made available to the public.

H. NOISE

APPLICABLE YBC FEIR MEASURES

The San Francisco Noise Ordinance requires that powered construction equipment, other than impact tools and equipment, regardless of age or date of acquisition, emit no more than 80 dBA when measured at a distance of 100 ft., or an equivalent sound level at some other convenient distance (a noise level from a single noise source drops by 6 dBA with every doubling of distance). Impact tools and equipment must have intake and exhaust mufflers recommended by the manufacturers and approved by the Director of Public Works as best providing maximum noise attenuation. The San Francisco Noise Ordinance requires a special permit for construction between 8:00 p.m. and 7:00 a.m.

The Redevelopment Agency would consider implementing the following post-construction site planning noise mitigations:

- Setting back housing from the major streets.
- Orienting housing away from noise sources, with courtyard and balcony areas screened from the noise by the building.
- Using noise barriers such as walls.
- Placing bedrooms as far as possible from exterior noise sources.

SUGGESTED ADDITIONAL MEASURES

- ** The Redevelopment Agency would consider requiring developers to notify the management of housing complexes adjacent to or across the street from construction sites when a DPW permit for nighttime construction has been requested for those construction sites.

The San Francisco Redevelopment Agency would ensure that residential and hotel uses incorporate necessary noise insulation features in accordance with the requirements of the California Noise-Insulation Standards (Title 25, Chapter 1, Subchapter 1, Article 4, of the California Administrative Code).

Residential, cultural, office and retail/commercial uses in areas exceeding maximum "satisfactory" noise level guidelines specified by Transportation Noise Element of the Comprehensive Plan of San Francisco (San Francisco Department of City Planning, August 1974) would receive a detailed analysis of noise reduction requirements and have needed noise insulation features included in their design. These features may include sound-rated glass windows, air-conditioning, and tight building construction. All exterior traffic noise levels in YBC can be reduced to acceptable interior noise levels (about 45 dBA Ldn or CNEL) through appropriate building design.

Should housing be constructed on CB-2, mitigation measures in addition to those required under State Noise Insulation Standards and City Noise / Land Use compatibility guidelines would be necessary to reduce the effects of peak noises from activities on CB-2. It is likely that noise-insulating materials capable of a 40 - 45 dBA reduction of exterior noise would be needed. Masonry construction and installation of sound-rated, double-pane glazed glass in gasketed windows can reduce outside noise by up to 60 dBA. (Charles M. Salter, PE, consultant in acoustics for Olympia & York, personal interview, December 3, 1981.) The Redevelopment Agency would ensure that the developer incorporates appropriate noise insulation in CB-2 housing to reduce exterior noise levels by up to 40-45 dBA.

Should an amphitheatre or other outdoor performance area be provided on CB-2, the Redevelopment Agency would require the Central Blocks developer to perform an acoustical analysis to develop a design and placement which would have minimal, if any, noise effects on Woolf House residents and residents of all other housing proposed for or existing in YBC. Necessary amphitheatre or outdoor performance area design modifications would be implemented to minimize effects of amplified sound on Woolf House and other residents.

- ** The Redevelopment Agency would consider requiring the Central Blocks developer not to permit outdoor amplified performances on CB-3.
- ** The Redevelopment Agency would consider requiring the Central Blocks developer to schedule the noisiest outdoor events (amplified performances) on CB-2 to avoid normal sleeping hours.

I. RESOURCE USE

ENERGY

APPLICABLE YBC FEIR MEASURES

The Redevelopment Agency would encourage the use of a total energy system for development of all new buildings. Because several major structures would be designed and built in the same area at about the same time, an exceptional opportunity exists to incorporate a total energy system into the design (see Section VII. I., YBC FEIR, pp. 498 - 499).

SUGGESTED ADDITIONAL MEASURES

The San Francisco Redevelopment Agency would consider developing design criteria for all new buildings to preclude development from significantly shading other YBC building sites or sites outside the redevelopment area (shading would reduce the availability of sunlight for use as solar energy). The Agency would review each building design proposal to ensure that it would conform to these criteria.

** The Redevelopment Agency would develop criteria for use in the design of each development to minimize the avoidable, unnecessary and/or wasteful use of nonrenewable energy and to encourage the use of renewable energy. The Agency would review each building design to ensure that it would conform to all criteria. The Redevelopment Agency would consider reviewing each building design to maximize the potential for incorporating solar energy for space and water heating in development in YBC, where feasible. See Appendix F., p. 265 for a sample list of such criteria.

WATER

APPLICABLE YBC FEIR MEASURES

The Redevelopment Agency would require the use of low-flow toilets, urinals, taps, and showerheads to reduce water consumption. Convention Center engineers have incorporated this measure into the convention center design.

The Redevelopment Agency has agreed to use a water-efficient form of irrigation, such as drip irrigation, and drought-resistant landscape materials in the open space areas to reduce irrigation. Convention Center engineers have incorporated this measure into the convention center design.

SUGGESTED ADDITIONAL MEASURE

The Redevelopment Agency would require developers to recycle the water used in all decorative fountains.

J. GEOLOGY - SEISMOLOGY

APPLICABLE YBC FEIR MEASURES

Buildings would be designed in conformance with the San Francisco Building Code, Article 23, Sections 2314A to K to withstand damage resulting from the ground motions which might occur during the maximum probable earthquake. For buildings which are six stories and higher, the anticipated interaction between the site and the structural frame during a major earthquake must be considered in the design. The San Francisco Bureau of Building Inspection requires that building designs meet these criteria.

To insure adequate foundation support for proposed new structures, a licensed soils engineer would be retained to investigate the site and prepare recommendations based on current soils engineering practice as required by the Seismic Safety Element of the San Francisco Comprehensive Plan. All buildings would be designed in accordance with the soils engineer's recommendations.

Periodic checks of structures in and adjacent to the site could be conducted by the San Francisco Bureau of Building Inspection to determine if settlement were occurring in areas subject to potential subsidence and to differential settlement. Building inspection is conducted ordinarily only after a complaint has been filed with the Bureau of Building Inspection.

All buildings would be designed and positioned in conformity with the policies of the San Francisco Community Safety Plan. High-rise buildings would be designed or positioned to minimize the fall of debris and glass onto sidewalks, streets or other areas where people are likely to gather. New office towers would be set back from the street above the second story of the structure (YBC FEIR, p. 501).

Erodible, unconsolidated geologic materials exposed during construction would be protected from wind erosion. Clays and silt might be a source of dust in the area. The ground surface could be wetted down daily with reclaimed water.

SUGGESTED ADDITIONAL MEASURE

The Redevelopment Agency would consider requiring each developer of a high-rise structure to prepare an evacuation and emergency response plan in consultation with Mayor's Office of Emergency Services. This would insure coordination between the City's emergency planning activities and the developer's plans as well as provide for building occupants in the event of an emergency. The developer's plans would be reviewed and approved by the Office of Emergency Services before issuance by the Department of Public Works of final building permits. The appropriate plan would be prominently posted in each high-rise building to be constructed.

K. HYDROLOGY

APPLICABLE YBC FEIR MEASURES

If in the judgment of the City Engineer unacceptable subsidence occurs during the construction, the Redevelopment Agency would require that the developer initiate groundwater recharge to halt the settlement.

Groundwater pumped from the site would be filtered, if this is found necessary, to prevent sediment from entering the sewer system.

L. ECOLOGY

APPLICABLE YBC FEIR MEASURE

The Redevelopment Agency would require the developers to use vegetation native to Northern California for landscaping, to the extent feasible.

APPLICABLE FIRST YBC EIR SUPPLEMENT MEASURE

Rat control efforts may be needed temporarily during construction, if the abandoned sewer line in Stevenson St. are exposed. The Department of Public Health would be responsible for implementing this measure.

M. "ARCHAEOLOGIC AND HISTORIC ASPECTS,"

SUGGESTED ADDITIONAL MEASURES

The Redevelopment Agency would follow the terms of the Memorandum of Agreement concerning Historic buildings in YBC, signed June 3, 1982. This agreement contains the following conditions:

- ** - The Redevelopment Agency would establish a "design review area" on the portion of YBC bounded by Jessie, Third, Mission, and Fourth Sts. The design of any project proposed for this area would be reviewed by the State Office of Historic Preservation and the Advisory Council on Historic Preservation for compatibility with adjacent historic structures based on scale, bulk, use of material, texture, and rhythm. A second "design review area" would be designated for the northerly 150 ft. of the block between Mission, Third, Howard, and Fourth Sts., within which the design of proposed structures would be reviewed for compatibility of facade design with adjacent historic structures.
- ** - Rehabilitation of buildings in YBC on or eligible for the National Register would be carried out according to the recommended treatment in "The Secretary of the Interior's Standards of Rehabilitation and Guidelines for Rehabilitating Historic Buildings."
- ** - Prior to demolition or alteration of properties within YBC on or eligible for the National Register, the history and present appearance of these buildings will be permanently recorded as determined by the National Architectural and Engineering Record (NAER). All documentation would be accepted by NAER, and the Advisory Council notified of its acceptance, before any demolition or alterations of the historic buildings could begin. Copies of this documentation would be provided to the SHPO.
- ** - If any of the above terms of the MOA cannot be carried out, the Redevelopment Agency would not take any action that would adversely impact any properties in YBC on or eligible for the National Register.
- ** The Redevelopment Agency would consider preserving the Williams Bldg. as part of the Aronson Historic District.

